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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,315	08/30/1999	WILLIAM M. PARROTT	008193-20002	8973

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EXAMINER	
VAUGHN JR, WILLIAM C	
ART UNIT	**PAPER NUMBER**
2143	24

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/385,315	PARROTT, WILLIAM M.	
	Examiner	Art Unit	
	William C. Vaughn, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

WCV

DETAILED ACTION

1. This Action is in response to the Request for Reconsideration received on 12 January 2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-11, 13-17, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, UK Patent Application 234920 in view of Sulavuori et al. (Sulavuori), U.S. Patent No. 5,636,264.

Regarding **claim 1**, Kobayashi discloses the invention substantially as claimed. Kobayashi discloses *an adapter* (Kobayashi teaches an option apparatus, infrared type connection apparatus, portable phone antenna and base station), [see Kobayashi, page 1, lines 4-7, page 2 line1, apparatus 1, see figure 2a, Figure 5b, page 35, line 23-27 & page 36, line 1], *comprising: an infrared transceiver* (Kobayashi teaches an Infrared Transmitter/Receiver circuit), [see Kobayashi, page 14, lines 12-15] *to transmit and receive information to and from an infrared data port* [see Kobayashi, page 35, lines 23-27]*; a radio frequency transceiver* (Kobayashi teaches Radio Transmitter/Receiver circuit), [see Kobayashi, page 12, lines 15-20] *to transmit and receive information to and from a radio frequency data system* [see Kobayashi, Page 36, lines 1-4]*; and a processor* [Kobayashi teaches a control circuit], [see Kobayashi, page 13, line 5-6, page 15, lines 5-25 and page 35, lines 7-9] *coupled to the infrared transceiver and the radio*

frequency transceiver [see Kobayashi, page 9, lines 8-11, page 15, lines 18-25]. Eventhough, Kobayashi does imply well-known techniques of conversions of signals [see Kobayashi, page 17, lines 17-27, page 18, lines 1-17 and page 20, lines 2-21]. Eventhough, Kobayashi does provide for a control circuit (processor) that converts signals. However, Kobayashi does not explicitly disclose the details of the converting information from the infrared transceiver to a radio frequency format for transfer to the radio frequency data system and to convert information received from the radio frequency transceiver to an infrared format for transfer to the infrared data port.

3. In the same field of endeavor, Sulavuori discloses (e.g., radio telephone which utilizes an infrared signal communication link). Sulavuori discloses *converting information from the infrared transceiver to a radio frequency format for transfer to the radio frequency data system and to convert information received from the radio frequency transceiver to an infrared format for transfer to the infrared data port* [see Sulavuori, Col. 8, lines 47-67, Col. 9, lines 1-28 and Col. 10, lines 5-14].

4. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Sulavuori's teachings of an radio telephone which utilizes an infrared signal communication link with the teachings of Kobayashi, for the purpose of providing reliable communication between a radio transceiver and an external device, while maintaining a very low power consumption [see Sulavuori, Col. 2, lines 31-60]. By this rationale **claim 1** is rejected.

5. Regarding **claim 2**, Kobayashi-Sulavuori discloses *comprising a buffer to provide temporary storage for information converted by the processor* (Kobayashi teaches a memory circuit), [see Kobayashi, page 13 line 15]. By this rationale **claim 2** is rejected.

6. Regarding **claim 4**, Kobayashi-Sulavuori discloses *wherein the infrared transceiver includes a driver circuit to transmit information to the infrared data port* [see Kobayahsi, page 14, lines 12-15]. By this rationale **claim 4** is rejected.

7. Regarding **claim 5**, Kobayashi-Sulavuori discloses *wherein the infrared transceiver includes a receiving circuit to receive information from the infrared data port* (Kobayashi teaches a transceiver/receiver circuit), [see Kobayashi, page 12, lines 15-20]. By this rationale **claim 5** is rejected.

8. Regarding **claim 6**, Kobayashi-Sulavuori discloses *comprising a housing* (Kobayashi teaches and option apparatus for a portable telephone), [see Kobayashi, page 22, lines 14-16 and Figure 5b]. By this rationale **claim 6** is rejected.

9. Regarding **claim 7**, Kobayashi-Sulavuori further discloses *a system* [see Kobayashi, Figure 9, portable type computer, see page 35 lines 1-13 base station, portable telephone, and portable computer comprise a network] *comprising: a computing device including an infrared data port* [see Kobayashi, Figure 9, item 31), *the infrared port configured to send and receive information to a radio frequency data system* [see Kobayashi, page 35, lines 13-15)] *the radio frequency* data system [see Kobayashi, page 35, lines 1-3] *in communication with the network and configured to send and receive information* [see Kobayashi, page 35, lines 15-17 and page 36 lines 4-8]; *and an adapter to transfer information between the infrared data port and the radio frequency data system* [see Kobayashi, Figure 9, item 1], *the adapter including: an*

infrared transceiver to transmit and receive information to and from the infrared data port [see Kobayashi, page 35, lines 23-27]; *a radio frequency transceiver to transmit and receive information to and from the radio frequency data system* [see Kobayashi, page 36, lines 1-4]; *and a processor* [see Kobayashi, see figure 3, control circuit CPU 120] *coupled to the infrared transceiver and the radio frequency transceiver* [see Kobayashi, figure 9, radio transmitter/receiver 11 and infrared transmitter/receiver 163] *to convert information received from the infrared transceiver to a radio frequency format for transfer to the radio frequency data system and to convert information received from the radio frequency transceiver to an infrared format for transfer to the infrared data port* [see Sulavuori, Col. 8, lines 47-67, Col. 9, lines 1-28 and Col. 10, lines 5-14]. By this rationale **claim 7** is rejected.

10. Regarding **claim 8**, Kobayashi-Sulavuori further discloses *wherein the computing device is a portable computer* [see Kobayashi, Figure 9, portable type computer]. By this rationale **claim 8** is rejected.

11. Regarding **claim 9**, Kobayashi-Sulavuori further discloses *wherein the adapter physically connects to the computing device* [See Kobayashi, page 2, lines 21-23]. By this rationale **claim 9** is rejected.

12. Regarding **claim 10**, Kobayashi-Sulavuori further discloses *wherein the adapter is a stand-alone unit* [see Kobayashi, semi-fixedly inserted page 22, lines 14-16 and see option apparatus for portable telephone Figure 5b] *that communicates with the computing device* [see Kobayashi, Figure 4, portable telephone comprises control circuit 22 w/CPU 120] *over an infrared communication link* [see Kobayashi, Figure 5b infrared type connection apparatus 29 and 16]. By this rationale **claim 10** is rejected.

13. Regarding **claim 11**, Kobayashi-Sulavuori further discloses *wherein the adapter further comprises a buffer to provide temporary storage for information converted by the processor* [see Kobayashi, memory circuit page 13, line 15]. By this rationale **claim 11** is rejected.

14. Regarding **claim 13**, Kobayashi-Sulavuori further discloses *wherein the infrared transceiver includes a driver circuit to transmit information to the infrared data port* [see Kobayashi, page 14, lines 12-15]. By this rationale **claim 13** is rejected.

15. Regarding **claim 14**, Kobayashi-Sulavuori further discloses *wherein the infrared transceiver includes a receiving circuit to receive information from the infrared data port* [see Kobayashi, page 12, lines 15-20]. By this rationale **claim 14** is rejected.

16. Regarding **claim 15**, the limitations of this claim are substantially the same as that of claims 1 and 7, and thus are rejected for the same rationale in rejecting claims 1 and 7. Furthermore, with regards to the limitations of a plurality of infrared data ports (It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of computing devices having infrared data ports, a plurality of infrared transceivers, and a processing means in communication with said plurality of infrared transceivers because the optimization of proportions in a prior art device is a design consideration within the skill of the art). In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961). By this rationale **claim 15** is rejected.

17. Regarding **claim 16**, Kobayashi-Sulavuori further discloses *a method for wirelessly connecting a computing device to a network* [see Kobayashi, Figure 9, portable type computer and page 35 lines 1-13 base station, portable telephone, and portable computer comprise a network], *comprising: receiving information over an infrared communication link from a remote*

computing device [see Kobayashi, page 35, lines 18-23]; *converting the information from an infrared format to a radio frequency format at a processor* [see Sulavuori, Col. 8, lines 47-67, Col. 9, lines 1-28 and Col. 10, lines 5-14]; *and communicating the information to the network over a radio frequency link* [see Kobayashi, page 36, lines 4-5]. By this rationale **claim 16** is rejected.

18. Regarding **claim 17**, Kobayashi-Sulavuori further discloses *receiving information over a radio frequency communication link from the network* [see Kobayashi, page 35 lines 1-13 base station, portable telephone, and portable computer comprise a network]; *converting the information from a radio frequency format to a infrared signal at a processor* [see rejection of claim 16, supra]; *and communicating the information to the computing device over an infrared communication link* [see rejection of claim 16, supra]. By this rationale **claim 17** is rejected.

19. Regarding **claim 21**, Kobayashi-Sulavuori further discloses *wherein the adapter further comprises a buffer to provide temporary information storage* [see Kobayashi, memory circuit page 13 line 15]. By this rationale **claim 21** is rejected.

20. Regarding **claim 22**, the limitations of this claim are substantially the same as that of claim 1, and are thus rejected for the same rationale in rejecting claim 1.

Claim Rejections - 35 USC § 103

21. **Claims 3, 12, 18-20 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi-Sulavuori as applied to claims 1, 7, 15, 16, 17 and 22 above, and further in view of well known in the art.

22. Regarding **claim 3**, Kobayashi-Sulavuori discloses the invention substantially as claimed. Kobayashi-Sulavuori does not explicitly teach the adapter further comprising a power supply in

communication with the processor. Kobayashi teaches *the adapter* (option apparatus) *for the telephone is electrically connected to the portable telephone* (page 2, lines 21-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayashi to include a power supply because in order for the adapter to be electrically connected a power supply must be present. By this rationale **claim 3** is rejected.

23. Regarding **claim 12**, Kobayashi-Sulavuori teaches the invention as claimed as noted above; However, Kobayashi- Sulavuori does not explicitly teach the adapter further *comprises a power supply coupled to the microprocessor*. Kobayashi teaches *the adapter* (option apparatus) *for the telephone is electrically connected to the portable telephone* (page 2, lines 21-23). By this rationale **claim 12** is rejected.

24. Regarding **claims 18-20 and 23**, Kobayashi-Sulavuori discloses the invention substantially as claimed. However, Kobayashi-Sulavuori does not explicitly disclose radio frequency format conforms to Bluetooth. (The inclusion of radio frequency format that conforms to Bluetooth protocol would have been obvious to one of ordinary skill in the networking art at the time the invention was made in view of the notoriously widely known and widely implementation of radio frequency format conforming to Bluetooth protocol in the wireless and networking art. The Examiner takes Official Notice (MPEP 2144.03) that "Bluetooth protocol is well known in the networking art at the time the invention was made as exemplified by several of the patents cited as relevant for this application (see Eichstaedt et al., U.S. Patent No. 6,218,958, Col. 1, lines 23-35 and Col. 3, lines 44-55). The Applicant is entitled to traverse the official notice according to MPEP 2144.03. However, MPEP 2144.03 further states "See also *In*

re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further 37 CFR 1.671©(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given little weight). And thus, since Kobayashi does provide motivation to utilize Bluetooth protocol through the use of a portable terminal unit, one of ordinary skill in the art would have provided provisions to utilize this protocol being that it is a standard for radio communication between electronic devices, developed and trademarked by the Bluetooth Consortium which allows for computer peripherals to communicate without cables, using radio frequencies for short-range exchange of data. For example, using your Bluetooth-equipped PC you could synchronize your telephone number list from your contact manager software with your Bluetooth-capable cell phone.

Claim Rejections - 35 USC § 102

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

26. **Claims 1-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Harrington, U.S. Patent No. 4,864,647.

Regarding **independent claims 1, 7, 15-17 and 22**, (e.g., exemplary independent claim 1), Harrington discloses an adapter comprising: an infrared transceiver to transmit and receive information to and from an infrared data port; a radio frequency transceiver to transmit and receive information to and from a radio frequency data system; and a processor coupled to the infrared transceiver and the radio frequency transceiver to convert information received from the infrared transceiver to a radio frequency format for transfer to the radio frequency system and to convert information received from the radio frequency transceiver to an infrared format for transfer to the infrared data port [see Harrington, Col. 2, lines 20-67, Col. 3, lines 1-57 and Col. 4, lines 1-10].

Claim Rejections - 35 USC § 103

27. **Claims 1-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, U.S. Patent No. 5,995,593.

28. Regarding **independent claims 1, 7, 15-17 and 22**, (e.g., exemplary independent claim 1), Cho discloses the inventions substantially as claimed. Cho discloses an adapter comprising: an infrared transceiver to transmit and receive information to and from an infrared data port; a transceiver to transmit and receive information to and from a data system; and a processor coupled to the infrared transceiver and the transceiver to convert information received from the infrared transceiver to a format for transfer to the system and to convert information received from the transceiver to an infrared format for transfer to the infrared data port [see Cho, Col. 2, lines 45-65, Col. 3, lines 1-7]. However, Cho does not explicitly disclose the detail teachings of

radio frequency. Eventhough, Cho does disclose a wireless data communication between a plurality of pieces of computer equipment including computers, computer terminals, scanners, computer peripherals and the like, may be accomplished by a sort of radio receiver called a pager, or wireless communication modules which are positioned at both locations [see Cho, Col. 1, lines 36-42]. Thus, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made for Cho to have convert information from an infrared format to a radio frequency format and from a radio frequency format to a infrared format, since Cho does provide motivation to do so by stating that radio frequency system could be used in wireless communication.

Response to Arguments

29. Applicant's arguments filed on 12 January 2004 have been carefully considered but they are not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address applicants' main points of contention. Applicant's arguments include:

A. Applicant states that the disclosure is properly enabled. Applicant further submits that both IR and RF technologies, and the conversion of each from one form into a different form is well known as well as the cited portions of (e.g., Kobayashi) which discloses the conversion of both IR and RF into different forms.

B. Applicant argues that Kobayashi nor Sulavouri disclose or suggest a processor converting information received from the infrared transceiver to a radio frequency format or converting information from the radio frequency transceiver to an infrared format.

30. As to "Point A", based upon Applicant's persuasive arguments the 35 USC 112, first paragraph rejection is withdrawn.

31. As to "Point B", Applicant admits the teaching of conversion of IR and RF signals are extremely well known. As also admitted by Applicant, Kobayashi does disclose this feature. However, Applicant has not provided any details of how their processor converts these signals from one to another and vice versa differs from what is admittedly well known in the art. Further, with the addition of Sulavouri, it further teaches the use of a modem that includes a control logic (processor) use to convert Radio Frequency signals to infrared signals. Examiner would like to also state that the control circuit of Kobayashi as well as the control logic of Sulavouri controls as well as facilitates all conversions of signals. The Examiner has also cited additional art that further shows the well known teachings of a processor that converts IR and RF signals.

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

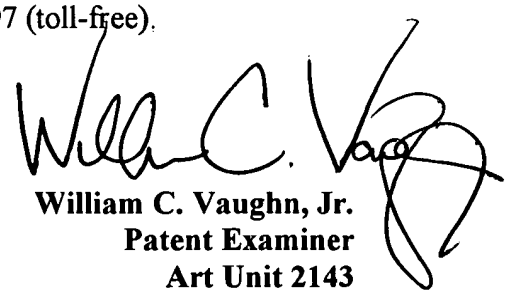
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Vaughn, Jr. whose telephone number is (703) 306-9129. The examiner can normally be reached on 8:00-6:00, 1st and 2nd Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William C. Vaughn, Jr.
Patent Examiner
Art Unit 2143
23 March 2004